

The Groundplane



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SBARA News and Information — February

At the Friday; February 13, 2009 SBARA Meeting, Our monthly Presentation will be on “***Having fun operating QSO Parties and other contests.***” The format will be a panel of three testers and a moderator asking the questions. Here is where we could use your help. Have you ever thought about getting on the air and joining in the fun of a QSO party or other form of contest? What questions do you have on how or why to do it?



Special Points of Interest....

- Amateur Radio Battery Packs
- CERT News
- T-Hunts

SBARA Board Meeting Minutes — Date: 1/28/2009

Attendees: Steve, Don, Brad, Bernhard, Tammy, and Umesh.

The following two topics were discussed:

a) Introducing a topic of the month was OK'ed, and a tentative list of topics for next few months was selected as follows:

FEB - Panel discussion about contesting and awards

MAR - CW tips, techniques and experiences by SBARA CW team

APR - Panel discussion about by VE, of VE, for the people

MAY - Getting started in HF (for first timers) and VHF (for first

timers)

JUNE - Field Day related topics (as time permits)

(remaining months to be decided at a later meeting)

It was also mentioned that Al WT6K is planning a contesting forum discussion for February.

Also, watch for SBARA's new Website coming soon. Details at the February meeting!

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Battery Packs for Amateurs

Objective

To have a battery pack that would work with modern mobile VHF/UHF transceivers and would not weigh a ton.

This project began after seeing some the hams lugging around the Gel Cells and SLA batteries, I figured there had to be better way. The following is written in a non-technical relational manner to make it easy for everyone with a basic knowledge of common terms.

The following table lists a summary of different kinds of rechargeable batteries.

The newer Ni-MH (Nickel-Metal-Hydride), Li-PO and Li-Ion batteries are much lighter for the equivalent energy capacity. The Li-PO and Li-Ion batteries are the most powerful but need to be handled with care. Neither of them have the “memory effect”, that was common to older technologies.

NiMH Battery Pack

It is pretty easy to put together a battery pack made up of commercially available AA-size NiMH batteries.

For a 12 volts, 2.5AH battery pack, you will need 10 AA NiMH batteries in series. Inexpensive battery holders are available in several combinations, that can hold 2 through 10 batteries each. You can get the most easily available holders and wire them together. For example, two 4-battery-holders and a 2-batteries-holder in series will put 10 batteries in series. Please note that ham radios are not very happy at 12 volts but are most happy between 13.8 to 14.8 volts, so I generally use three 4-packs in series.

For greater current capacities, you will need to put more such units in parallel. So, to get 14.4 volts at 5 AH we will need two pairs of 12-battery-pack in parallel. At this point it is best to note that connecting batteries in parallel-series is better than series-parallel.

This is a parallel-series configuration:

|Battery| |Battery| |Battery| |Battery|
|Battery| |Battery| |Battery|

-|Battery|-|Battery|-|Battery|-|Battery|-
|Battery|-|Battery|- more -|Battery|-

|Battery| |Battery| |Battery| |Battery|
|Battery| |Battery| |Battery|

This is a series-parallel configuration:

|Battery-Battery-Battery-Battery-Battery-
Battery-Battery- more -Battery|

-|Battery-Battery-Battery-Battery-Battery-
Battery-Battery- more -Battery|-

|Battery-Battery-Battery-Battery-Battery-
Battery-Battery- more -Battery|

I currently am using a battery pack made up of twelve series units of 5 AA batteries in parallel, this provides 14.4 volts at 12.5 AH and weighs about a fifth of a comparable SLA battery. The only protection necessary is a non-breakable box preferable made of ABS plastic and 10Amp inline fuses on both leads.

Similar, commercial built compact battery packs can be purchased from battery vendors like Batteries America Inc. Battery Space Inc. and others.

Charging the battery pack

I use a Maha Smart Charger to charge the battery pack between uses. It charges the battery pack over night and the parallel series configuration makes sure all cells are charged uniformly.

Congratulations you now have a battery pack like no other – high powered, dependable and lighter than a SLA. When connecting to the radio make sure the radio is off, the voltage of the pack is in accordance with the radio and the connector is connected the right way.

In the next article we will discuss about building a high capacity battery pack with Li-Ion and Li-PO batteries. This is a bit more challenging. (Cont'd. on Page)

73s, Umesh

The Groundplane

Fremont Freewheelers Bike Club



"Fremont Freewheelers Bike Club SBARA to assist with Primivera.

Have you volunteered yet?

SBARA has been asked to provide radio support for the Primivera bicycle Ride on Sunday April 19, 2009.

The bike ride starts and ends at Logan High School in Union City, travels south to Ed Levin Park, East/North up Calaveras Rd to Sunol, East through southern Pleasanton and Livermore to the top of the Altamont pass then west back through central Livermore and Pleasanton, over the Dublin

grade next to 580, south down Palomares Rd. to Niles Canyon and back to Logan High School. There are options for rides of 25,40,60 and 100 miles.

We need to cover 5 aid stations, plus net control and as many SAG vehicles as possible, up to 17. The most important SAG areas to cover with Ham Radio are Calaveras Rd and Palomares Canyon as cell phones do not work there. An HT with any outside the car

antenna will work for SAG. An HT with a rubber ducky and 11 hours of battery will suffice at all the aid stations. We will be using the 147.045+ repeater on Sunol ridge. Except in the area of Ed Levin where we will use W6MLB 145.43-

Morning only or afternoon only shifts are available. Contact Tony Flusche at: TonyF@att.net or you may call him at: 510-247-3220.

T-HUNTS Sponsored by LARK-SBARA

Fremont Hunt 5:00 pm Sat Feb 7th. Talk-in WA6PWW 147.015+. It may require a PL,103.5. Rich KN6FW will be the fox.

Pleasanton Hunt; 5:00 pm Sat Feb 21st. Talk-in 147.12 - PL 100 RichKN6FW will be the fox. R.S.V.P. or no hunt!

For directions or more info please call Rich KN6FW at 925-462-1467

**T-Hunt
Catch the Fox
and You Win!!!**

SBARA Meeting Location

Our meeting location is at Hurricane Electric. The address in Fremont is:

760 Mission Court — Come to the meeting. Bring your HF transceiver (and antenna) or HT !

Talk-In 147.015Mhz. +600

Also consider joining us at Wok City Diner for Dinner at 6PM - mingle with your fellow SBARA members!!!!

The Groundplane

Welcome to all our new CERTs!

2009 promises to be an exciting year!

Since our last e-mail in 2008... Fire Station 6 has moved to their new station at Central and Dusterberry. At our first PEP class in 2009 we had 60+ in attendance!

We are hoping to be in our **new training classroom**, CERT Central, by the end of April. The room will have heat and air! Plus state of the art audio/video equipment and new chairs.

Chuck and Kay are planning their second **paint party** in the April/May time frame. I have seen photos and you guys did a fantastic job! Thank you!

Want to update/refresh your CERT skills? Remember you can attend any of our CERT classes.

Class 6 CERT Drill for Ardenwood and Centerville will be held in Ardenwood at Fire Station 10 on Wednesday, March 18th. Please plan on attending. Start time is 7:00 pm. If you are unable to make this drill you will have 3 more times to practice in 2009. 2009 Class 6 drills will be on Thursday, May 28th and Tuesday, October 27th.

Special Skills Drill... will be on Saturday, July 25th. Stay tuned to future e-mails for more detail.

In March there will be a **Mass Dispensing Exercise at the Oakland Coliseum**. As soon as we have the details we will let you know (i.e. date and times).

Our first **CERT class** for this year starts in less than 2-weeks; Wednesday, February 11th. If you know anyone that would like to take CERT please have them contact Kay or send an e-mail to [Fire-](mailto:Fire-PubEd@ci.fremont.ca.us)

PubEd@ci.fremont.ca.us; we are accepting new enrollees for our April/May classes.

Don't forget to tell your friends, co-workers, and neighbors about our **PEP classes**. Check the schedule for dates and times. If you are interested in having a PEP class at your church, homeowners association, etc. please contact Chuck at guaragliac@comcast.net.

Been thinking about getting your ham radio license? There will be 2-cram classes offered this year; April 18th and October 17th; both are on a Saturday at 2500 Mowry, Washington Hospital West. Pre-registration is required. We should have the registration information available by our February e-mail. We have about 26-CERTs with their ham license. During a disaster we would like to see each team that is sent out with a licensed ham operator. This years cram classes do not conflict with our other training opportunities, so please consider getting your license. If Kay, Chuck and I can do it so can you! The cost of a cram class is \$30-35 and takes about 8-hours; the license is good for 10-years.

We will be having a booth at this years **Art & Wine Festival**. We want to reach as many people as possible about our programs and utility control. If you are interested in helping please let us know.

Please continue to support Kay and Chuck by attending the different training activities. I miss being there with you!

Gordon Yost
Centerville CERT
District Coordinator

The Groundplane

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- Li-Ion Battery

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Great Price!



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PAGE 1



IC-706MKIIG HF/VHF Transceiver

- All mode HF/5M/2M/70CM
- 100W HF/5M, 50W/2M, 20W/440 MHz
- AF-DSP • Plug and Play Filters • No Soldering
- Easy-to-Navigate menus

Low Pricing!



IC-756 PRO III All mode Transceiver

- 150-5M @ 100W • Enhanced Rx performance
- 32 bit IF DSP • 36dB/Hz Synchronous tuning
- Enhanced 5 inch color TFT w/spectrum scope
- Selectable IF filter shapes for SSB & CW
- Multiple DSP controlled AGC loops
- Advanced CW functions
- 101 alphanumeric memories

The Ultimate Radio!



DJ-196T 2W HT

- 5 Watt out
- 40 memories
- Alpha numeric display
- CTCSS + DCS built in
- "B" meter
- Auto Dialer

Low Pricing!



DR-135TP 2M mobile

- 50Watt out • Alpha numeric display
- 100 memo • Built-in TNC 1200 & 9600 Baud
- Front Panel GPS In • Rear DB-9 port
- CTCSS/DCS Encode/Decode built in

Low Pricing!



FT-857D

- Ultra compact HF, VHF, UHF
- 100w HF/5M, 50w 2M, 20w UHF
- DSP Included • 32 color display
- 200 memo • Detachable front panel (F85-007 required)

Call for Low Price!



FT-2000 HF + 6M trans

- 100W w/ auto tuner
- built-in Power supply
- DSP filters • Voice memory recorder
- 8 Band Parametric Mic EQ
- 8 IF roofing filters

Call Now For Low Pricing!

The Groundplane

Battery Packs for Amateurs

(From Page 2)
lists a summary
rechargeable bat-
73'es
Umesh

	SLA	Ni-MH	Li-PO	Li-Ion
Nominal Voltage	6 or 12 volts	1.2 volts	3 volts	3.3 volts
Nominal Capacity	6 AH	2500 mAH	2000mAH	3000 mAH
Rechargeable	Yes	Yes	Yes	Yes
Relative Weight	Heavy	Medium	Low	Low
Relative Safety	Safe	Safe	Safe with Protection	Safe with Protection
Relative Cost	Low	Median	High	High

The following table
of different kinds of
teries

**South Bay Amateur Radio
Association**
Founded 1974
Mailing Address
Box 8401
Fremont, Ca. 94537-8401
Web Site — www.sbara.org

President
Open Position
Vice President
Brad Douglas, KB8UYR
Treasurer
Don Amyx, N6DA
Secretary
Open Position
Newsletter Editor
Bill Artelt, WB9YVM
Webmaster
Umesh Ghodke, K6VUG
Quartermaster
Jim Wood, KE6IVA
Program Facilitator

Fremont Repeaters & Net Information

WA6PWW - 147.015 +600Khz, PL 103.5
WA6PWW - 223.900 -500Khz, PL 107.2
WA6PWW - 442.600 +5Mhz, PL 107.2
K6AIR - 146.940 -600Khz, PL 123.0
K6AIR - 441.525 +5Mhz, PL 123.0
ARES - Tuesday @ 7:30pm -
147.015 + PL 103.5

The **South Bay Amateur Radio Association** is a general interest amateur radio club serving the Fremont Tri-City area. The club has been in existence since 1974, and has functioned continuously ever since. We are an ARRL Special Service Club, a California not-for-profit tax exempt organization as specified in IRS Statutes. We sponsor training for new hams, license

examination sessions, and participate in various public service events. If you have a specialized amateur radio interest, chances are you can share it with one or more of our club members.

SBARA meets on the 2nd Friday of every month at Hurricane Electric in Fremont, California. The meeting begins at 7:30 PM. After conducting business, coffee

and snacks are served while we socialize. Following the break, a program of interest will be presented. All persons interested in amateur radio are invited to attend. Families are welcome. We hope to see you there!

The Groundplane

Announcements

SBARA's monthly meeting is
February 13th. Starting at 7:30pm



Our meeting location is at Hurricane Electric. The address in Fremont is:
760 Mission Court — Come to the meeting and bring your HT !!

Talk-In 147.015Mhz. +600

**Come and join us for dinner at
Wok City Diner at 6PM**

The Ground Plane — KU6S
<http://www.sbara.org>
South Bay Amateur Radio Association — SBARA
P.O. Box 8401
Fremont, Ca. 94537-8401